

CLAIMS:

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1.

For use in a video encoder comprising base layer coding means, provided for receiving a video sequence and generating therefrom base layer signals that correspond to video objects (VOs) contained in the video frames of said sequence and constitute a first bitstream suitable for transmission at a base layer bit rate to a video decoder, and

5 enhancement layer coding means, provided for receiving said video sequence and a decoded version of said base layer signals and generating therefrom enhancement layer signals associated with corresponding base layer signals and suitable for transmission at an enhancement layer bit rate to said video decoder, a method for coding the VOs of said sequence comprising the steps of :

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(A) segmenting the video sequence into said VOs ;

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(B) coding successive video object planes (VOPs) of each of said VOs, said coding step itself comprising sub-steps of coding the texture and the shape of said VOPs, said texture coding sub-step itself comprising a first coding operation without prediction for the VOPs called intracoded or I-VOPs, coded without any temporal reference to another VOP, a

second coding operation with a unidirectional prediction for the VOPs called predictive or P-VOPs, coded using only a past I- or P-VOP as a temporal reference, and a third coding operation with a bidirectional prediction for the VOPs called bidirectional predictive or B-VOPs, coded using both past and future I- or P-VOPs as temporal references, said method being characterized in that the temporal reference of the enhancement layer P-VOPs is

20 selected only as the temporally closest candidate, and the temporal references of the enhancement layer B-VOPs are selected as the two temporally closest candidates, in each of these two situations without any consideration of the layer these candidates belong to.

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2. Computer executable process steps stored on a computer readable medium and provided for carrying out a coding method according to claim 1.

3.

A computer program product for a video encoder, for carrying out in said encoder the coding method according to claim 1, which product comprises a set of

instructions which, when loaded into said encoder, causes it to carry out the steps of said method.

4. A video encoder comprising base layer coding means, receiving a video

5 sequence and generating therefrom base layer signals that correspond to video objects (VOs) contained in the video frames of said sequence and constitute a first bitstream suitable for transmission at a base layer bit rate to a video decoder, and enhancement layer coding means, receiving said video sequence and a decoded version of said base layer signals and generating therefrom enhancement layer signals associated with corresponding base layer signals and
10 suitable for transmission at an enhancement layer bit rate to said video decoder, said video encoder comprising :

(A) means for segmenting the video sequence into said VOs ;

(B) means for coding the texture and the shape of successive video object
planes (VOPs) of each of said VOs, the texture coding means performing a first coding
15 operation coding without prediction for the VOPs called intracoded or I-VOPs, coded without any temporal reference to another VOP, a second coding operation with a unidirectional prediction for the VOPs called predictive or P-VOPs, coded using only a past I- or P-VOP as a temporal reference, and a third coding operation with a bidirectional prediction for the VOPs called bidirectional predictive or B-VOPs, coded using both past and
20 future I- or P-VOPs as temporal references, characterized in that the temporal reference of the enhancement layer P-VOPs or B-VOPs is selected only as the temporally closest candidate, and the temporal references of the enhancement layer B-VOPs are selected as the two temporally closest candidates, in each of these two situations without any consideration of the layer these candidates belong to.